20-Inch
Black & White Monitor

Installation and Operating Instructions

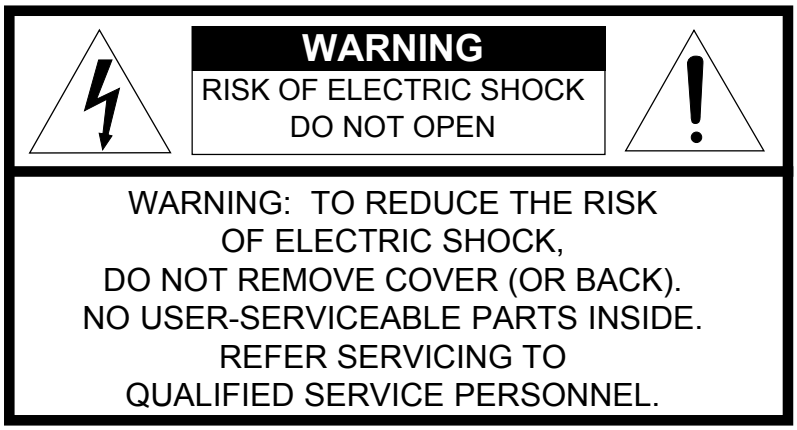
AMM20
AMM20X

ADEMCO VIDEO

All information was correct at the time of publication. ADEMCO Video reserves the right to make changes and improvements to the product without notice.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.



Explanation of Graphic Symbols

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Safety Precautions

Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.

Unplug the unit from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on soft surfaces (rugs, carpets, sofas, etc.) or near materials (curtains, draperies) that may block the ventilation holes.

Height and vertical linearity controls located on the rear panel are for special adjustments by qualified personnel only.

IMPORTANT SAFEGUARDS

1. READ INSTRUCTIONS – Read the safety and operating instructions before operating the monitor.

2. RETAIN INSTRUCTIONS – Retain the safety and operating instructions for future reference.

3. CLEANING – Unplug video monitor from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

4. ATTACHMENTS – Do not use attachments not approved by the video monitor manufacturer as they may result in the risk of fire, electric shock or injury.

5. WATER AND MOISTURE – Do not use video monitor near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.

6. ACCESSORIES – Do not place video monitor or equipment on an unstable cart, stand or table. The video monitor or equipment may fall, causing serious injury and serious damage to the equipment. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.

7. CARTS – Video monitor and cart combinations should be moved with care. Quick stops, excessive force and uneven surfaces may cause the equipment and cart combination to overturn.

8. VENTILATION – Slots and openings in the cabinet and the back or bottom are provided for ventilation, to ensure reliable operation of the video monitor and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the video monitor on a bed, sofa, rug or other similar surface. Video monitor should never be placed near or over a radiator or heat register. Video monitor should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.

9. POWER SOURCES – Video monitor should be operated only from the type of power source indicated on the marking label. If you are not certain of the type of power supply you have, consult your video monitor dealer or local power company.

10. GROUNDING OR POLARIZATION – This video monitor may be equipped with a polarized alternating-current line plug (a plug with one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug. If your video monitor is equipped with a three-wire grounding-type plug (a plug having a third grounding pin), this plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

11. POWER CORDS – Do not allow anything to rest on the power cord. Do not locate video monitor or equipment where the cord can be damaged by persons walking on it.

12. HEED WARNINGS – Follow all instructions marked on the video monitor.

13. LIGHTNING – During lightning storms or when the monitor will be left unattended and unused for long periods, unplug the monitor and associated equipment from the wall outlet. This will prevent damage to the video equipment caused by lightning and power-line surges.

14. OVERLOADING – Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

15. OBJECT AND LIQUID ENTRY – Never push objects of any kind into video monitor through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

16. SERVICING – Do not attempt to service video monitor as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

17. DAMAGE REQUIRING SERVICE – Unplug video monitor and equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions:

A. When the power-supply cord or the plug has been damaged.
B. If liquid has spilled, or objects have fallen into the monitor.
C. If the monitor has been exposed to rain or water.
D. If the monitor does not operate normally when following the operating instructions, adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the monitor to its normal operation.
E. If the monitor has been dropped or the cabinet damaged.
F. When the monitor exhibits a distinct change in performance, this indicates a need for service.

18. REPLACEMENT PARTS – When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

19. SAFETY CHECK – Upon completion of any service or repairs to the monitor, ask the service technician to perform safety checks to determine that the video product is in proper operating condition.

20. FIELD INSTALLATION – Installation should be performed by a qualified service person and should conform to all local codes.

FCC COMPLIANCE STATEMENT

INFORMATION TO THE USER: THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS B DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE IN A RESIDENTIAL INSTALLATION. THIS EQUIPMENT GENERATES, USES AND CAN RADIATE RADIO FREQUENCY ENERGY AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTIONS, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. HOWEVER, THERE IS NO GUARANTEE THAT INTERFERENCE WILL NOT OCCUR IN A PARTICULAR INSTALLATION. IF THIS EQUIPMENT DOES CAUSE HARMFUL INTERFERENCE TO RADIO OR TELEVISION RECEPTION, WHICH CAN BE DETERMINED BY TURNING THE EQUIPMENT OFF AND ON, THE USER IS ENCOURAGED TO TRY TO CORRECT THE INTERFERENCE BY ONE OR MORE OF THE FOLLOWING MEASURES:

– REORIENT OR RELOCATE THE RECEIVING ANTENNA

– INCREASE THE SEPARATION BETWEEN THE EQUIPMENT AND RECEIVER

– CONNECT THE EQUIPMENT TO AN OUTLET ON A CIRCUIT DIFFERENT FROM THAT TO WHICH THE RECEIVER IS CONNECTED

– CONSULT THE DEALER OR AN EXPERIENCED RADIO/TV TECHNICIAN FOR HELP

CAUTION: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE MANUFACTURER COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS B DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

CET APPAREIL NUMÉRIQUE DE LA CLASSE B EST CONFORME À LA NORME NMB-003 DU CANADA.

THIS PRODUCT COMPLIES WITH VARIOUS OTHER REGIONAL AND SAFETY REGULATIONS SUCH AS: UL, CUL, CSA, CE. THESE CERTIFICATIONS ARE NOTED ON THE PRODUCT LABEL.

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Chapter 1 – Introduction

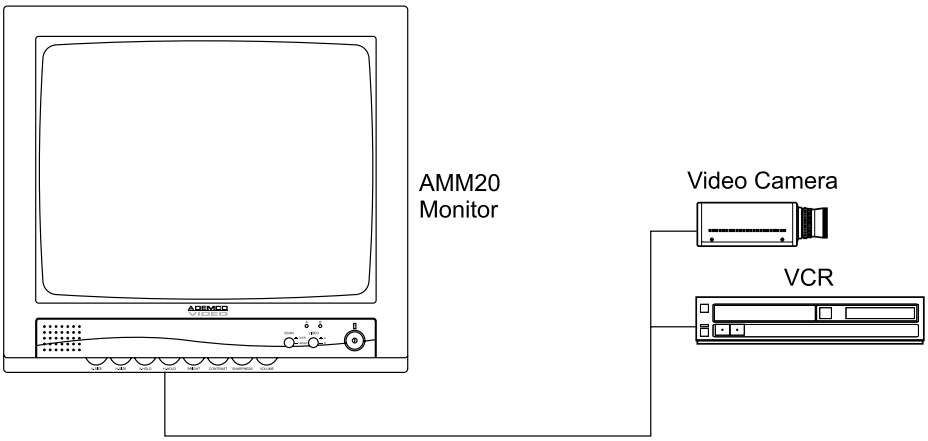

Figure 1 – Typical configuration

Features

- Convenient front panel controls
- Switch between two video inputs
- Audio input
- Switchable DC restoration
- Adjustable Scanning Size
- LED power indicator
- Video loop-through output with automatic 75-Ohm termination
- Recessed carrying handles

Technical Overview

The ADEMCO AMM20 is a 20-inch B&W monitor with more than 900 TV lines of resolution at the center. It accepts video from two sources, and the user can switch between video sources with the simple press of a button. Each video input has a 75-ohm BNC loop-through connector so that additional monitors or other video equipment can be "daisy-chained" with the monitor.

The AMM20 has a built-in speaker and audio input and output connectors on the rear panel.

Chapter 2 – Installation

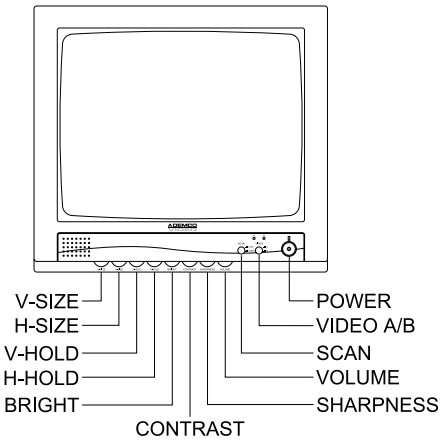

Figure 2 – Front panel controls

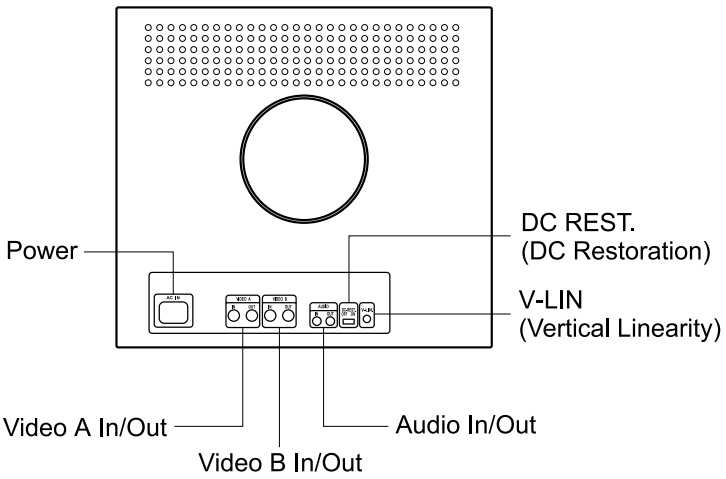

Figure 3 – Rear panel connectors and controls

Required Installation Tools

Installing the AMM20 monitor does not require any special tools.

Installation Instructions

WARNING: The monitor should be installed in an area that is clean, dry and well ventilated. Do NOT install the monitor where it can get wet; such as near pools, sinks, open windows, etc. Do NOT install the monitor in excessively dusty areas; dust can block ventilation holes causing the monitor to overheat. Operate the monitor on flat firm surfaces; NOT on surfaces such as rugs, carpet, beds or sofas because these can block ventilation holes on the bottom of the monitor. Do NOT install the monitor where items such as drapes or curtains can block ventilation holes. If the monitor is installed in a rack, make certain it has sufficient ventilation.

WARNING: If the monitor's plug does not fit your power outlet, do NOT modify the plug. Have a certified electrician update your power outlet. Do NOT route the power cord where individuals can trip on it. Do NOT route the power cord where it can be damaged such as under a rug.

Place the monitor on a flat sturdy surface near a power outlet. Connect the video input cable to the *Video In* BNC connector. The video input can be from a camera, VCR, multiplexer or the loop output of another monitor.

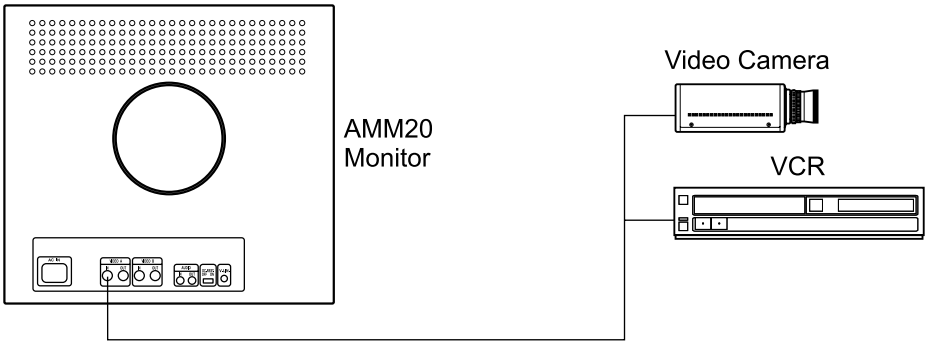

Figure 4 – Single monitor connection

If the monitor will be used in a well lit area, set the *DC REST* (DC Restoration) switch to the *ON* position. Set it to the *OFF* position if the monitor is used in a low light situation.

If you plan to loop the video out to another monitor, connect a cable to the *Video Out* BNC and route it to the *Video In* of the second monitor. Up to three monitors can be connected using the loop-through feature.

NOTE: Do NOT attach a cable to the *Video Out* unless it is connected to the *Video In* of another device. Attaching a cable to the *Video Out* deactivates the termination and will cause poor quality video unless the other end of the cable is attached to another device.

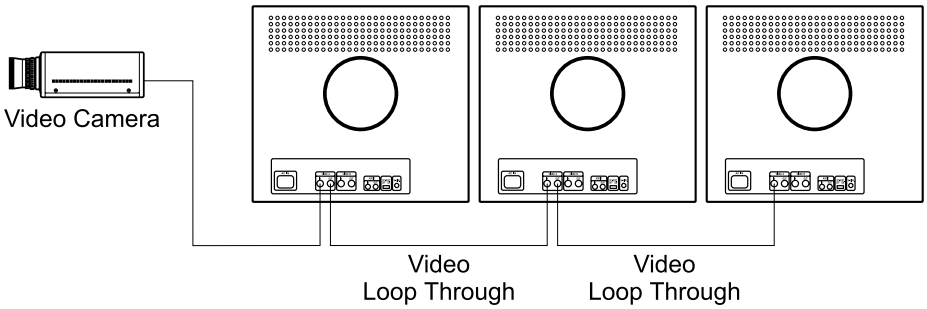

Figure 5 – Multiple monitor connection

Connect the power cord to the power outlet.

Chapter 3 – Operation

To turn on the monitor, press the power button on the front panel. After a few seconds, video should appear on the monitor. If video does not appear, refer to the *Troubleshooting* section of this manual.

Press the *VIDEO* button to switch between the two video sources. LEDs will light to indicate whether the *A* or *B* source is displaying.

Press the *SCAN* button to switch between the over-scan and under-scan modes. When set to *UNDER*, the entire image from the camera displays with some black border showing. *OVER* is the normal CCTV application setting, and the picture fills the entire monitor display.

The *VOLUME* knob is used to adjust the audio level.

Rotate the *SHARPNESS* knob to adjust the picture sharpness.

Rotate the *CONTRAST* knob clockwise to increase picture contrast and counterclockwise to decrease contrast.

If the picture is too dark, rotate the *BRIGHT* knob clockwise to brighten it. If the picture is too bright, rotate the *BRIGHT* knob counterclockwise to darken it.

If the picture is skewed, adjust the *H-HOLD* (horizontal hold) by rotating the knob clockwise or counterclockwise until the picture is stationary.

If the picture rolls, adjust the *V-HOLD* (vertical hold) by rotating the knob clockwise or counterclockwise until the picture is steady.

Rotate the *H-SIZE* knob to increase and decrease the horizontal size of the image on the monitor display..

Rotate the *V-SIZE* knob to increase and decrease the vertical size of the image on the monitor display.

Appendix A – Troubleshooting

Problem	Possible Solution
No Video	Check that all components in the system (monitor, cameras, VCRs, multiplexers, etc.) have power and are turned on. Check that the camera lens cap is removed and the lens is set to proper aperture. Check coaxial cable(s) for proper connections and condition. Make certain the *BRIGHT* or *CONTRAST* control knobs are not turned to their extreme positions. Connect a known good video source directly to the monitor to make certain the monitor is not the problem.
Bad Video	If no video equipment is "looped through" the monitor, make certain that a cable is NOT connected to the loop-through connector.
Black Border	Set the *SCAN* switch to the *OVER* position.
Video too bright or dark	Check position of *DC REST* switch. Adjust the *BRIGHT* knob. Check that the lens aperture is set correctly
Bad video contrast	Adjust the *CONTRAST* knob.
Skewed picture	Adjust the *H-HOLD* knob.
Rolling picture	Adjust the *V-HOLD* knob.

Problem	Possible Solution
Fuzzy Video	If the camera has a manual focus lens, check that it is properly focused. If the camera has an autofocus lens, ensure that it is working properly. Check that the back focus ring on the camera has been adjusted correctly. Check that the lens and housing window are clean.

Appendix B – Specifications

PICTURE TUBE ..... 20" Diagonal, 114° Deflection Angle
(Useful screen size) ..... (18.5")
POWER SOURCE ..... 90 to 264 VAC, 50Hz/60Hz
POWER CONSUMPTION ..... 45 Watts
VIDEO STANDARD ..... EIA and CCIR
RESOLUTION ..... more than 900 TV lines (center)
INPUT SIGNAL ..... 1.0 Volt peak-to-peak (75 ohms)
SCANNING FREQUENCY:
HORIZONTAL 60Hz: 15.734KHz
..... 50Hz: 15.625KHz
VERTICAL 60Hz: 59.94Hz
..... 50Hz: 50Hz
LINEARITY:
HORIZONTAL ..... 10% Maximum
VERTICAL ..... 10% Maximum
ACTIVE DISPLAY AREA:
..... 10% overscanning
..... 6% underscanning
VIDEO INPUT ..... 2 BNC connectors
VIDEO OUTPUT ..... 2 BNC connectors
AUDIO ..... 2 RCA connectors (1 input, 1 output)
CONTROLS:
FRONT ..... V-SIZE
..... H-SIZE
..... V-HOLD
..... H-HOLD
..... BRIGHT
..... CONTRAST
..... SHARPNESS
..... VOLUME
..... SCAN
..... VIDEO A/B
..... POWER Switch
BACK ..... V-LIN
..... DC REST
OPERATING TEMPERATURE ..... 32°F to 104°F (0°C to 40°C)
DIMENSIONS (W x D x H) ..... 17.5” x 15.0” x 16.9”
..... 445mm x 381mm x 430mm
WEIGHT ..... 38 lbs. (17.3 Kg)
SHIPPING WEIGHT ..... 46.9 lbs. (21.3 Kg)

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